STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM
1101 RIVERSIDE DRIVE, P.O. BOX 176
JEFFERSON CITY, MISSOURI 65102-0176

EMISSIONS INVENTORY QUESTIONNAIRE (EIQ)

FORM 2.7 HAUL ROAD FUGITIVE EMISSIONS WORKSHEET

FACILITY NAME	FIPS COUNTY NO.	PLANT NO.	YEAR OF DATA

PLEASE NOTE: If the sum of all Vehicle Miles Traveled (VMT) for all haul roads and trucks is less than 100 VMT, then the PM10 emissions for all the haul roads do not need to be reported on these forms. However, if the emissions are not reported, documentation on the actual annual VMT figures for the facility must be provided.

[1] HAUL ROAD INFORMATION

POINT NO.	SOURCE CLASSIFICATION CODE (SCC)	SEG NO.	TYPE OF DUST CONTROL (CHECK ONE)	CONTROL EFF %
LENGTH OF ROAD (MILES)	SILT CONTENT (%) DEFAULT = 8.3%	SURFACE MATERIAL OF ROAD	☐ SURFACTANT SPRAY	90
			☐ WATER SPRAY DOCUMENTED	> 50
			☐ WATER SPRAY	50
SURFACE MATERIAL MOISTURE CONTENT (%) (MUST REFERENCE DRY, WORST-CASE CONDITIONS DEFAULT = 0.2%)	DAYS OF RAIN WITH AT LEAST 0.01" PER YEAR (DEFAULT = 105)		☐ NO CONTROLS	0
			☐ OTHER (SPECIFY): _____	

[2] HAUL TRACK INFORMATION

MAKE/MODEL	
AVERAGE WT OF MATERIAL PER LOAD (TONS)	UNLOADED TRUCK WT (TONS)
AVERAGE TRUCK SPEED (MPH)	AVERAGE LOADED TRUCK WT (TONS)

[3] MATERIAL HAULED

TYPE OF MATERIAL(S) HAULED	LIST ANY PERMIT CONDITIONS LIMITING THE AMOUNT HAULED
ANNUAL AMOUNT HAULED (TONS)	MAXIMUM HOURLY AMOUNT HAULED (TONS)

[4] CALCULATION OF ANNUAL VEHICLE MILES TRAVELED (VMT)

ANNUAL VMT = 2 X {LENGTH OF HAUL ROAD} X {ANNUAL AMOUNT HAULED} / {AVERAGE WT OF MATERIAL PER LOAD}

ANNUAL VMT	REPORTABLE LEVEL = THE SUM OF ALL ROAD VMTS >100	MAXIMUM HOURLY VMT

[5] CALCULATION OF HAUL ROAD EMISSION FACTOR

PM10 EMISSION FACTOR =
2.6 X ({SILT CONTENT (%)} / 12)ˆ0.8 X [({UNLOADED TRUCK WT} + {AVERAGE LOADED TRUCK WT}) / 6]ˆ0.4 X [(365 - {DAYS OF RAIN} / 365] / [{SURFACE MATERIAL MOISTURE CONTENT (%)} / 0.2]^0.3
* IF AVERAGE TRUCK SPEED IS <15 MPH, MULTIPLY THE EQUATION BY (AVERAGE TRUCK SPEED / 15)

PM10 EMISSION FACTOR

LBS PM10/VMT

The PM10 emission factor for the haul roads can be calculated using the equation from the AP 42 section on Unpaved Haul Roads (section 13.2.2) provided in Block 5 of this worksheet. When using these equations, PM10 emission factors should be calculated for each separate haul road and type of haul truck. The Stone Quarrying SCC number (3-05-020-11) should be used as the SCC number on Form 2.0. The calculated PM10 emission factor should be entered in the PM10 Box in Section 3, Block 7 on Form 2.0.

A more detailed discussion on dust control method and the resulting Control Efficiency (%) can be found in the AP 42 section 13.2.2. The appropriate dust control method should be checked in Block 1 and the control efficiency should be entered in the PM10 Box of Section 3, Block 10 on Form 2.0.

ALTERNATE METHODS TO ESTABLISH THE HAUL ROAD PM10 EMISSION FACTOR

Instead of using this form to calculate the PM10 emission factor for haul roads, the Source Classification Code (SCC) For Stone Quarrying and Processing Haul Road Emissions (3-05-020-11) may be used as a default SCC number. The PM10 emission factor to use with this SCC number is 6.2 lbs of PM10 per VMT.